

RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RALPH W. BAXTER, JR.

Appeal 2006-3052
Application 10/765,959
Technology Center 3600

Oral Hearing Held: October 25, 2007

22Before WILLIAM F. PATE, III, TERRY J. OWENS, and JENNIFER D.
23BAHR. Administrative Patent Judges

27ON BEHALF OF THE APPELLANT:

GEORGE AYVAZOV, Ph.D.
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36 The above-entitled matter came to be heard on October 25, 2007,
37 commencing at 1:48 p.m., at the United States Patent and Trademark Office.

1600 Dulany Street, Alexandria, Virginia, before Deborah Rinaldo, Notary
2Public.

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P R O C E E D I N G S

5 MR. AYVAZOV: What we have here --

6 JUDGE PATE: Good afternoon, sir. We've taken the opportunity to
7look at this case beforehand, so we're pretty much up to speed. With that in
8mind, keep going.

9 MR. AYVAZOV: So the major argument here is our disagreement,
10my disagreement with the examiner regarding the definition of the word
11differential because we positively claim -- we cite differential in our claims.
12The examiner cites this reference to Porter which disclosed hydraulic
13coupling. Examiner says that this is differential and accuse us in limiting the
14definition of word "differential."

15 We think that the examiner's approach is really simplistic. This
16hydraulic coupling basically is a clutch having input, output and friction
17clutch assembly.

18 Of course when you -- examiner's line of reasoning is that when you
19apply this clutch, input shaft slips relatively to the output shaft, so there's
20relative rotation between them. So this is differential because a differential
21rotation between those shafts.

22 We, while appreciating the fact that the examiner have to interpret as
23broadly as possible, but at same time he should be within the knowledge of
24one ordinary skilled in the art. So how one of ordinary skill in the art would
25interpret this, and also that the terminology of claims should be given plain
26meaning.

1 And the term "differential" as a device is very well known in the
2automotive world. Hundred years every car in the market has differential.
3And there is a definition for this. And we use the definition from the
4dictionary of automotive engineering. I have it with me, published by SAE.
5So it's exactly automotive engineers, and it's international organization.

6 As a matter of fact, I am a member of this organization for more than
715 years and which clearly says that differential is not any device which has
8-- device should have three members or three shafts or three members, one
9input drive member and two output members. And the differential of
10speeds, what we're talking about, is between two output shafts.

11 As we all know, when -- the best example might be when the car goes
12on curve, outside wheel travels longer than inside wheel. So we have to
13adjust to this. So what the differential mechanism does, it's this treatment of
14torque and speed between right and left.

15 Basically the sum of -- by definition the sum of speeds of right and
16left wheels should be equal. So meaning that if you travel straight, forward,
17the speed is equal on the right and left. So 50/50.

18 If you go to curve, like a large curve, it's maybe 60/40. But the sum is
19hundred again. Or if you are going on a curve, might be 70/30. But the sum
20is 100. So that is a differential. So bottom line is should have three kind of
21members.

22 The examiner accusing us of overlimiting these case cites, some
23personal website. I have somewhere here, some fellow from Hong Kong
24who, in effect, his note -- I printed out one of the part of his page he's talking
25about himself.

26 It may be a surprise to you that I created such a high quality

1automotive website, he says. Then he goes, Also most amazing is that I
2have never studied or worked in automotive field.

3 And the examiner cites this guy as like -- puts him higher as
4dictionary of society of automotive engineering, which I don't think it's
5correct.

6 JUDGE PATE: I understand your argument. This is not usually an
7evidentiary hearing. But you say you that you brought your dictionary with
8you?

9 MR. AYVAZOV: Right.

10 JUDGE PATE: So could you open it up and see if it has the entry for
11a center differential.

12 MR. AYVAZOV: Let me see if they have. They have the
13differential. What about center?

14 See, the center differential, basically it's a location. Very often --
15when we have four-wheel-drive vehicle front differential, rear differential,
16center differential. Not all four-wheel-drive vehicles, they have central
17differential. The reason why is differential is expensive. Okay.

18 As a matter of fact, in this prior art, they don't have central
19differential. That's why they use this hydraulic coupling. Why because it's
20cheaper.

21 What happens here, you have front-wheel-drive axle, it's a primary
22drive. And rear-wheel-drive, it's so-called on demand what we call in trade.
23Usually it's off. So only front drives the car. But what if front axle starts
24slipping? Then we need the rear axle. So we give the signal to this clutch.
25The clutch engages the rear axle and we have all-wheel drive.

26 JUDGE PATE: I think I've just thrown you off of your task. Can you

1go ahead and look and see if that's in there, center differential.

2 MR. AYVAZOV: I don't think that's -- it's not here. But they may
3mention it while talking -- no. It's not specifically.

4 JUDGE PATE: Well, I took the liberty of looking in several
5automotive books. I looked in three, and center differential was in two of
6them. One of them was a British publication and one of them was an
7American publication.

8 The examiner's argument is that what you call the hydraulic clutch in
9the reference is a center differential.

10 MR. AYVAZOV: No, it is not. I respectfully disagree with you
11because I know this art pretty well. Differential differentiates between two
12output shafts. Like this guy, he called this not by himself. He read
13somewhere.

14 But apparently it's kind of layman terms because usually they have
15central differentials, but sometimes to reduce the cost of a vehicle, they
16replace the differential with the clutch.

17 It's a hydraulic clutch. Might be a viscous clutch. And like by inertia
18they call it differential, but it's not differential because it does not
19differentiate between front and rear axle.

20 Because usually real central differential, what it is, it gets input from
21the engine, and then it has two outputs. One goes to the front axle and
22second goes to the rear axle. And then that's central differential adjusts and
23controls the speed and torque distribution between the front axle and rear
24axle to those output shaft.

25 JUDGE PATE: I think we understand both the invention and the
26controversy here.

1 MR. AYVAZOV: What I'm trying to say that very often what they
2call this hydraulic clutch is central differential, it's not correct. They are
3mistake.

4 JUDGE OWENS: If a differential requires two outputs, why does
5 your claim say at least one output shaft?

6 MR. AYVAZOV: I don't know. It's just apparently -- let me see. It
7should be two. It's no doubt about it. It's sometimes kind of broader.
8Apparently it's just by inertia. At least one friction clutch. So I don't know.
9But it should be two. We clearly show and disclose in the specification two

10 JUDGE PATE: I think we have a good understanding of this case.
11 Do you have any more remarks for us?

12 MR. AYVAZOV: I just only think that this book should override
13 everything else because I even tried to convey this. In Internet you can find
14 pretty much everything and call it anything, everything, whatever you want
15 because it's open to everyone.

16 Like electronic engineer creates a website, fabulous automotive
17 website. Anyone can do it. They may call different ways. Like in the trade,
18 I mean, there are some -- it's not good.

19 I think that in the field we have to follow just correct definitions of
20 proper definitions, not like layman terms of some --

21 JUDGE PATE: I think we understand your argument. We're going to
22 take this case under advisement. Thank you for your presentation.

23 (Whereupon, the proceedings at 1:58 p.m. were concluded.)